AMENDMENTS TO THE SPECIFICATION

On page 1, line 1, of the specification please replace the title as following amended title:

METHOD FOR IDENTIFYING CHARACTERISTICS OF MOLECULES USING NUCLEOTIDES

Please replace the paragraphs spanning page 3, line 32, to page 4, line 6, of the specification with the following:

Figure 1 is a schematic illustration of the "units" of sequence that represent individual bases on a target polynucleotide (Sequences labeled as "Natural DNA polymer are provided as SEQ ID NOs: 12-13; Sequences labeled as "Design Polymer" are provided as SEQ ID NOs: 5-6);

Figure 2 is a schematic illustration of the apparatus used to detect fluorescent signals generated during the method;

Figure 3 is a schematic illustration of the results obtained during the polymerase extension reaction (template sequences in Figure 3 c) are provided as SEQ ID NOs: 7-8; the polymers generated after polymerase extension are provided as SEQ ID NOs: 14-15); and

Figure 4 is a schematic illustration of the method steps resulting in the conversion of the target polynucleotide into a defined second polynucleotide.

Please replace the paragraphs spanning page 6, lines 1-9, with the following amended paragraph (underlining of the "A" and "G" positions in the sequences is found in the original specification as filed):

Odd numbered template sequence:

"0": TTTTTTA(CCC) (SEQ ID NO. 1)

"1": TTTTTTG(CCC) (SEQ ID NO. 2)

Even numbered template sequence:

"0" : CCCCCCA(TTT) (SEQ ID NO. 3)

"1" : CCCCCCG(TTT) (SEQ ID NO. 4)

Please replace the paragraph on page 12, lines 13-22 with the following amended paragraph:

In a preferred embodiment, the label is a fluorescent moiety. Many examples of fluorophores that may be used are known in the prior art, and include:
Alexa dyes (MOLECULAR PROBES™ ~~Molecular Probes~~)
BODIPY™ dyes (MOLECULAR PROBES™ ~~Molecular Probes~~)
Cyanine dyes (AMERSHAM BIOSCIENCES™ ~~Amersham Biosciences~~ Ltd.)
Tetramethylrhodamine (PERKIN ELMER™ ~~Perkin Elmer~~, MOLECULAR PROBES™ ~~Molecular Probes~~, ROCHE™ ~~Roche~~ Diagnostics)
Coumarin (PERKIN ELMER™ ~~Perkin Elmer~~)
TEXAS RED™ ~~Texas Red~~ (MOLECULAR PROBES™ ~~Molecular Probes~~)
Fluorescein (PERKIN ELMER™ ~~Perkin Elmer~~, MOLECULAR PROBES™ ~~Molecular Probes~~, ROCHE™ ~~Roche~~ Diagnostics)

Please replace the paragraph beginning on page 14, line 24 with the following amended paragraph:

A target polynucleotide is converted into a series of second polynucleotides using the methods disclosed in WO-A-00/39333. Four defined second polynucleotides are used to represent 0 and 1 units in both even and odd numbered positions. The 0- and 1- units have the sequence TTTTTTACCC (SEQ ID NO: 1) and TTTTTTGCCC (SEQ ID NO: 2), respectively, in odd numbered positions, while their codings are CCCCCCATTT (SEQ ID NO: 3) and CCCCCCGTTT (SEQ ID NO: 4), respectively, in even numbered positions.